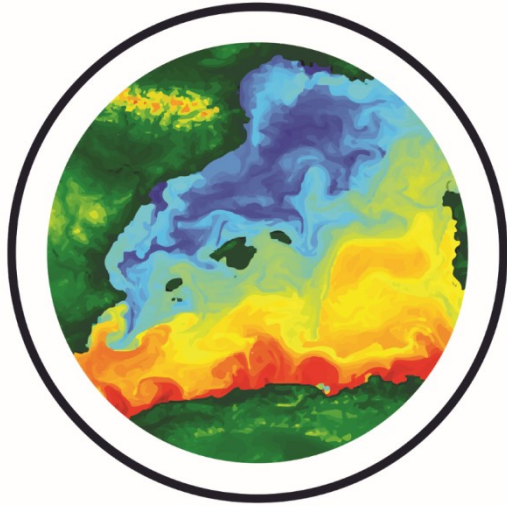# Lecture time table

GODAE OceanView
International School

New Frontiers in Operational Oceanography
2-13 October 2017, Club Pollentia Resort, Mallorca, Spain.

Directors

Ananda Pascual, IMEDEA (CSIC-UIB), Esporles, Mallorca, Spain

Joaquin Tintoré, SOCIB & IMEDEA (CSIC-UIB), Palma, Mallorca, Spain

Eric Chassignet, COAPS, Florida State University, Tallahassee, USA

Jacques Verron, IGE, Grenoble, France

WEEK 1							
Time	SUNDAY 1 Oct	MONDAY 2 Oct	TUESDAY 3 Oct	WEDNESDAY 4 Oct	THURSDAY 5 Oct	FRIDAY 6 Oct	SATURDAY 7 Oct
7:30		International School: **Registration** 7:30 – 9:00					
9:00	Arrival day	**International School:** **General information** JACQUES VERRON ERIC CHASSIGNET ANANDA PASCUAL and JOAQUÍN TINTORÉ	**General Introduction to** **"Ocean Variability 3"** BAYLOR FOX-KEMPER, Brown University, USA	**Observations:** **"Satellites and operational** **oceanography "** PIERRE-YVES LE TRAON, Mercator Océan, France	**Observations:** **"High resolution altimetry** **observations 2"** ROSEMARY MORROW, LEGOS, France	9:00 – 12:00 **Group 1:** **Visit of the R/V** **SOCIB (research** **vessel)** (B. CASAS C. CASTILLA M. TORNER)	**Models & tools:** **"Current status of** **"Modeling 2"** ERIC CHASSIGNET, FSU/ COAPS, USA
9:45		**General Introduction to** **"Ocean Variability 1"** BAYLOR FOX-KEMPER, Brown University, USA	**Observations:** **"Unravelling meso and** **sub-mesoscale vertical** **motion "** SIMON RUIZ, IMEDEA, Spain	**Observations:** **"SST & SSS observations** **and their role to constrain** **ocean models 1"** TONY LEE, JPL, USA	**Models & tools:** **"Current status of** **"Modeling 1"** ERIC CHASSIGNET, FSU/COAPS, USA		**Models & tools:** **"Multi-resolution ocean** **models"** JULIEN LE SOMMER, IGE, France
10:30		Break				+	Break
11:00		**General Introduction to** **"Ocean Variability 2"** BAYLOR FOX-KEMPER, Brown University, USA	**Observations:** **"Shelf and coastal ocean** **observing systems "** MONINYA ROUGHAN, UNSW, Australia	**Observations:** **"The ocean colour opera-** **tional system, part of the** **Copernicus marine environ-** **ment monitoring service"** GIANLUCA VOLPE, ISAC-CNR, Italy	**Observations:** **"SST & SSS observa-** **tions and their role to** **constrain ocean mod-** **els 2"** TONY LEE, JPL, USA	**Group 2:** **Stay at hotel:** **Training on how** **to write a good** **scientific** **proposal and pa-** **per** (A.MAHADEVAN and E. MASON)	**Predictions systems:** **"Ocean prediction:** **assessment from multi-** **platform observations"** BAPTISTE MOURRE, SOCIB, Spain
11:45		**Overview of** **"Operational** **Oceanography 1"** ANDREAS SCHILLER, CSIRO, Australia	**Observations:** **"New Era of** **Biogeochemical** **Observations "** MACIEJ TELSZEWSKI, IOCCP	**Observations:** **"Turbulent heat fluxes and** **applications "** MARK BOURASSA, FSU/ COAPS, USA	**Models & tools:** **"Ocean circulations** **models"** JULIEN LE SOMMER, IGE, France		**Models & tools:** **"Biogeochemical** **modelling 1"** AMALA MAHADEVAN, WHOI, USA

13:00		Lunch					
14:00						**14:30 –17:30**	
17:00	International School: **Registration** 17:00 – 21:00	**Overview of** "Operational Oceanography 2" ANDREAS SCHILLER, CSIRO, Australia	**Predictions systems:** "Downscaling GODAE analysis systems to coastal and shelf regions" JOHN WILKIN, Rutgers University, USA	**Observations:** "Satellite altimetry " PIERRE-YVES LE TRAON, Mercator Océan, France	**Models & tools:** "Surface Waves" FABRICE ARDHUIN, LOPS, France	*Groups swap from morning session* <u>Group 2:</u> **Visit of R/V SOCIB** *(see morning)* + <u>Group 1:</u> **Training at hotel** *(see morning)*	**Models & tools:** "Towards data-driven, probabilistic ocean circulation models" JULIEN LE SOMMER, IGE, France
17:45		Break					Break
18:00		**Observations:** "International ocean observing systems application " MONINYA ROUGHAN, UNSW, Australia	**Observations:** "Remote sensing of winds and applications" MARK BOURASSA, FSU/ COAPS, USA	**Observations:** "High resolution altimetry observations 1" ROSEMARY MORROW, LEGOS, France	**Models & tools:** "Reanalysis" KEITH HAINES, University of Reading, UK		**Models & tools:** "Biogeochemical modelling 2" AMALA MAHADEVAN, WHOI, USA
19:00		Dinner					
from 20:00		**Introduction of Participants**	**Debate 1** **Present & Future of Operational Oceanography** *(with representatives of Operational Oceanography Centres)*	**Free**	**Participants poster presentations**	**Free**	**Free**

☐ Introduction	☐ Models & tools	☐ Arrival/departure days	☐ Evening activities
☐ Overview	☐ Prediction systems	☐ Joint activities	☐ Free time or meal periods
☐ Observations	☐ Applications		

Time	SUNDAY 8 Oct	MONDAY 9 OCT	TUESDAY 10 OCT	WEDNESDAY 11 OCT	THURSDAY 12 OCT	FRIDAY 13 OCT
9:00		**Predictions systems: "System integration"** JEAN MICHEL LELLOUCHE, Mercator Océan, France	**Models & tools: "Ensemble and Hybrid Methods in Oceanography"** IBRAHIM HOTEIT, KAUST, Saudi Arabia	**Predictions systems: "Biogeochemical Systems 2"** DAVID FORD, Met Office, UK	**Predictions systems: "Arctic predictions"** SYLVAIN BOUILLON, NERSC, Norway	**Applications: "Diagnosis, prognosis and management of jellyfish swarms"** LAURA PRIETO, ICMAN (CSIC), Spain
9:45		**Predictions systems: "Operational coastal ocean forecasting with ROMS"** JOHN WILKIN, Rutgers University, USA	**Models & tools: "Ice Modeling"** SYLVAIN BOUILLON, NERSC, Norway	**Predictions systems: "New frontier coupled prediction systems 1"** CHRIS HARRIS, Met Office, UK	**Predictions systems: "Model validation"** FABRICE HERNANDEZ, IRD/ Mercator Océan, France	**Applications: "Operational oceanography and the management of pelagic resources"** PATRICIA REGLERO, IEO, Spain
10:30	Free	**Break**				
11:00		**Models & tools: "Atmosphere and Coupled ocean-atmosphere models"** CHRIS HARRIS, Met Office, UK	**Predictions systems: "Biogeochemical Systems 1"** DAVID FORD, Met Office, UK	**Applications: "Sources and pathways of artificial marine debris"** NIKOLAI MAXIMENKO, University of Hawaii, USA	**Applications: "Dynamics and impacts of disaster marine debris"** NIKOLAI MAXIMENKO, University of Hawaii, USA	**Applications: "Operational oceanography at the service of the ports"** ENRIQUE ALVAREZ-FANJUL, Puertos del Estado, Spain
11:45		**Models & tools: ""Where are the errors?" in the context of operational Assimilation"** GREG JACOBS, NRL, USA	**Models & tools: "New directions for DA: Selected topics"** IBRAHIM HOTEIT, KAUST, Saudi Arabia	**Applications: "The European Copernicus Marine Service (CMEMS)"** MARIE DREVILLON, Mercator Océan, France	**Applications: "Global Cooperation in Sustained Ocean Observing"** MARTIN VISBEK, GEOMAR, Germany	**Applications: "Wave propagation models for coastal oceanography"** ALEJANDRO ORFILA, IMEDEA (CSIC-UIB), Spain
12:30						International School: **Concluding presentation and Thanks**

Time		Col1	Col2	Col3	Col4	Departures
13:00	Free	Lunch				Departures
14:00		**Hands-on EUMETSAT (3TS)**		**Hands-on CMEMS (3TS)** (M. DREVILLON, J. BEUVIER and M. BENKIRAN)		
17:00		**Model & tools:** "Data Assimilation Concept and Methods" IBRAHIM HOTEIT, KAUST, Saudi Arabia	**Observations:** "Optimized ocean observing system design" JOHANNES KARSTENSEN, GEOMAR, Germany	**Models & tools:** "Internal gravity waves" BRIAN ARBIC, University of Michigan, USA	**Applications:** "Applications of prediction systems" CHRIS HARRIS, Met Office, UK	
17:45		Break				
17:00		**Models & tools:** "Tides" BRIAN ARBIC, University of Michigan, USA	**Predictions systems:** "Understanding and Predicting El Niño and the Southern Oscillation" MIKE McPHADEN, NOAA/PMEL, USA	**Predictions systems:** "New frontier coupled prediction systems 2" CHRIS HARRIS, Met Office, UK	**Applications:** "Operational oceanographic products to achieve sustainable development goals" NADIA PINARDI, University of Bologna, Italy	
19:00		Dinner			**Final dinner**	
from 20:00		Free	**Debate 2 Ocean observations from space and operational oceanography** (with representatives of CNES, ESA and EUMETSAT)	Free	Free	

Legend:
- ☐ Introduction
- ☐ Overview
- ☐ Observations
- ☐ Models & tools
- ☐ Prediction systems
- ☐ Applications
- ☐ Arrival/departure days
- ☐ Joint activities
- ☐ Evening activities
- ☐ Free time or meal periods

> *All students are expected to **arrive on or before Sunday, 1 October 2017** and to **stay for the full duration** of the school until **Friday 13 October 2017**.*
>
> *The school will start on 2 Oct 2017 (Monday) morning at 9 am.*

Typical day schedule

Event	Times
Breakfast	8:00 – 9:00
Lectures	9:00 – 12:30 with a break from 10:30 to 11:00
Lunch	13:00 – 14:00
Lectures/ conferences	17:00 – 18:45 with a break from 17:45 – 18:00
Dinner	19:00 – 20:00
Evening debate	(some evenings) planned from 20:00 – 21:30

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